

Remarks

Applicant respectfully requests that this Amendment After Final Action be admitted under 37 C.F.R. § 1.116.

Applicant submits that this Amendment presents claims in better form for consideration on appeal. Furthermore, applicant believes that consideration of this Amendment could lead to favorable action that would remove one or more issues for appeal.

No claims have been amended. No claims have been canceled. Therefore, claims 1-26 are now presented for examination.

Claims 1-6, 10-13, 18-21 stand rejected under 35 U.S.C. §102 (e) as being anticipated by Wells et al. (U.S. Patent No. 5,535,369). Applicants submit that the present claims are patentable over Wells.

Wells discloses the performance enhancement of a solid-state disk by storing repeatedly used information in a RAM. The information is referred to as FLASH array database. Further, Wells discloses that a sector header translation table (SHTT) also stored in RAM that translates a sector number into a pointer to an associated sector of data. Both the FLASH array database and SHTT must be generated during power-up because they are stored in volatile memory, RAM, and because reads and writes depend upon them. First, building begins with the initialization of the SHTT. Each pointer for each sector number is set to the same initial value. Next, the total amount of free memory within the FLASH array, and the total amount of free memory per chip are initialized to their maximum values. See Wells at col. 7, ll. 20 – col. 8, ll. 55.

Claim 1 of the present application recites:

A method comprising:
receiving a request to download data into flash
memory;
halting the downloading of the data into the flash
memory until the flash memory is initialized, wherein
the initialization includes storing pointers in a memory

to different locations within the flash memory where the data is to be stored; and

storing the data into the flash memory based on the pointers stored in the memory.

Applicants submit that there is no disclosure in Wells of storing pointers in a separate memory to different locations within the flash memory where the data is to be stored. Wells discloses allocating memory for a sector of a Flash memory to be written by writing a block sector offset into a block sector translation table of a block of Flash. See Wells at col. 18, ll. 55-59. However, allocating memory for a sector of a Flash memory to be written is not equivalent to storing pointers in a memory to different locations within the flash memory where the data is to be stored. Therefore, claim 1 is patentable over Wells

Claims 2-4 depend from claim 1 and include additional limitations. Thus, claims 2-4 are also patentable over Wells.

Claim 5 recites:

A method comprising:

receiving a request from an external device to store data into a flash memory of a device, wherein the request includes the size of the data;

in response to receiving the request, initializing the flash memory of the device prior to receiving the data, wherein the initializing comprises:

determining whether the size of free space within the flash memory is greater than the size of the data; and

upon determining that the size of the free space within the flash memory is not greater than the size of the data, reclaiming space within the flash memory.

Applicants submit that Wells does not disclose reclaiming space within a flash memory. Instead, Wells discloses a process of cleaning up a solid-state disk, where dirty sectors of the solid-state disk are converted into free memory. See Wells at col. 22, ll. 60 - col. 23, ll. 9. It is apparent that cleaning up a solid-state disk is not equivalent to reclaiming space within a flash memory. Therefore, claim 5 is patentable over Wells.

Because claims 6-9 depend from claim 5 and include additional limitations, claims 6-9 are also patentable over Wells.

Claim 10 recites:

An apparatus comprising:
a flash memory partitioned into blocks;
a random access memory coupled to the flash
memory;
a write unit coupled to the flash memory and the
random access memory, wherein the write unit is to
receive a request to download data into the flash
memory and wherein the write unit is to download the
data into the flash memory; and
an initialize unit coupled to the flash memory, the
random access memory and the write unit to initialize
the flash memory in response to receiving the request to
download data by storing pointers, prior to
downloading the data into the flash memory, in the
random access memory to a number of the blocks
within the flash memory that are free to store the data.

Similar to the arguments discussed with respect to claim 1, applicants submit that Wells does not disclose storing pointers in a random access memory to different locations within the flash memory where data is to be stored. Accordingly, claim 10 is also patentable over Wells. Since claims 11-13 depend from claim 10 and include additional limitations, claims 11-13 are also patentable over Wells.

Claim 14 recites:

A system comprising:
a server coupled to a network; and
a cellular telephone wirelessly coupled to the
network, wherein the cellular telephone comprises,
a flash memory partitioned into blocks;
a random access memory coupled to the
flash memory;
a processor that is coupled to the flash
memory and the random access memory, the processor
to execute a number of instructions, which when
executed by the processor causes the processor to,
receive a request, from the server, to
download data into the flash memory;
halt the downloading of the data into
the flash memory until the flash memory is initialized,

wherein the initialization includes storing pointers in the random access memory to a number of the blocks within the flash memory where the data is to be stored;
and

store the data into the flash memory based on the pointers stored in the memory.

For the reasons described above with respect to claims 1 and 10, claim 14 is patentable over Wells. Because claims 15-17 depend from claim 14 and include additional limitations, claims 15-17 are also patentable over Wells.

Claim 18 recites:

A machine-readable medium that provides instructions, which when executed by a machine, causes the machine to perform operations comprising:

receiving a request to download data into flash memory;

halting the downloading of the data into the flash memory until the flash memory is initialized, wherein the initialization includes storing pointers in a memory to different locations within the flash memory where the data is to be stored; and

storing the data into the flash memory based on the pointers stored in the memory.

For the reasons described above with respect to claim 1, claim 18 is patentable over Wells. Because claims 19-21 depend from claim 18 and include additional limitations, claims 19-21 are also patentable over Wells.

Claim 22 recites:

A machine-readable medium that provides instructions, which when executed by a machine, causes the machine to perform operations comprising:

receiving a request from an external device to store data into a flash memory of a device, wherein the request includes the size of the data;

in response to receiving the request, initializing the flash memory of the device prior to receiving the data, wherein the initializing comprises,

determining whether the size of free space within the flash memory is greater than the size of the data;

upon determining that the size of the free space within the flash memory is not greater than the

size of the data, reclaiming space within the flash memory;

generating headers for each of a number of different locations within the flash memory where the free space is located;

storing the headers into the number of different locations within the flash memory; and

storing pointers, in a separate memory, to the number of different locations within the flash memory where the free space is located;

transmitting a signal to the external device to transmit the data after the initialization of the flash memory is completed;

receiving the data into a number of buffers within the device; and

storing the data within the number of buffers into the number of different locations within the flash memory where the free space is located.

Thus, for the reasons described above with respect to claims 1 and 5, claim 22 is patentable over Wells. Since claims 23-26 depend from claim 10 and include additional limitations, claims 23-26 are also patentable over Wells.

Claims 7-9, 14-17, 22-26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wells et al. (U.S. Patent No. 5,535,369) in view of See et al. (U.S. Patent No. 6,189,070). Applicants submit that the present claims are patentable over Wells even in view of See.

See discloses a method and apparatus that manages data and reads code from a nonvolatile writeable memory. See See at Abstract. Nevertheless, See does not disclose or suggest storing pointers in a separate memory to different locations within flash memory where the data is to be stored. In addition, See does not disclose or suggest reclaiming space within the flash memory upon determining that the size of the free space within the flash memory is not greater than the size of the data.

As discussed above, Wells also does not disclose or suggest such limitations. Therefore, any combination of Wells and See would also not disclose or suggest storing pointers in a separate memory to different locations within flash memory where the data

is to be stored, or reclaiming space within the flash memory upon determining that the size of the free space within the flash memory is not greater than the size of the data. Consequently, the present claims are patentable over Wells in view of See.

Applicant respectfully submits that the rejections have been overcome, and that the claims are in condition for allowance. Accordingly, applicant respectfully requests the rejections be withdrawn and the claims be allowed.

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,
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